REMARKS

Claims 1-26 are pending in the application.

Claim Rejection 35 U.S.C. § 102

35 U.S.C. § 102(e)

Claims 1-26 stand rejected under 35 U.S.C. §102(e) as anticipated by Samela, United States Patent Number 6,217,228 (hereinafter Samela). Applicants respectfully traverse. The present invention generally is directed to an apparatus for dual porting a serial disk drive for improved suitability in fault tolerant communication systems such as fibre channel or the like through the implementation of idle regenerators.

Claim 1, generally recites an apparatus having a first idle regenerator being capable of transmitting signals including an idle character stream, a second idle regenerator being capable of transmitting signals including an idle character stream is additionally included, and a third idle regenerator connected to the first and second idle regenerators and the serial disk drive.

The Samela reference discloses a Fiber Channel Drive Adapter. In other words, Samela discloses a plug for interfacing between a DB9 receptacle and a fibre channel drive connector. Samela, Col. 1, lines 57-58. Samela fails to teach or disclose a first idle regenerator being capable of receiving and transmitting signals to the first serial master device including an idle character stream. At no time does Samela disclose the use of an idle regenerator, instead Samela discloses a wiring interface (which does not implement a first idle regenerator, a second idle regenerator, and a third idle regenerator). Nowhere does Samela teach a synchronization logic capable of synchronizing data transfers between one of the first idle regenerator and the second idle regenerator, and the third idle generator, wherein the synchronization logic is connected to the first, the second and the third idle regenerators. Rather, the cited portions of Samela disclose a connector for a pin arrangement to allow for physically converting a DB9 pin arrangement into a fibre channel plug, therefore Samela fails to anticipate Claim 1. As the Office is aware, [a]nticipation

requires the disclosure in a single prior art reference of each element of the claim under consideration. *W.L. Gore & Assocs. v. Garlock*, 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983), *cert. denied*, 469 U.S. 851 (1984). For a prior art reference to anticipate a claim, the reference must disclose each and every element of the claim with sufficient clarity to prove its existence in the prior art....Although this disclosure requirement presupposes the knowledge of one skilled in the art of the claimed invention, that presumed knowledge does not grant a license to read into the prior art reference teachings that are not there. *Motorola, Inc. v. Interdigital Tech. Corp.*, 121 F.3d 1461, 43 USPQ 2d 1481, 1490 (Fed. Cir. 1997). As there has been no showing how the DB9 receptacle (48), the DB9 receptacle (DB9 receptacle of fig. 2) and the forty pin SCA 2 receptacle (3 of fig. 2) function as, respectively, a first idle regenerator, a second idle regenerator, and a third idle regenerator a *prima facie* case of anticipation has not been shown. Additionally, there has been no showing of how the referenced passages of column five (lines 39-41 and 62-65), or any other portion of the Samela reference, disclose a synchronization logic capable of synchronizing data transfers between one of the first idle regenerator and the second idle regenerator, and the third idle generator, wherein the synchronization logic is connected to the first, the second and the third idle regenerators. As a *prima facie* case of anticipation is not met, removal of the pending rejection under 35 U.S.C. §102(e) is requested and allowance is earnestly solicited.

Claims 6, 13, and 21 are believed to be allowable based on their dependence from Claims 1, 10, and 17. Applicants will not burden the record further. Removal of the pending rejection is respectfully requested and allowance is earnestly solicited.

Regarding Claims 7 and 14, Claim 7 stands rejected as anticipated by Samela. Applicants respectfully traverse. Applicants disagree with the Office's assertion that Samela, Col. 5, lines 62-65 as disclosing synchronization logic capable of providing synchronization for idle character switching. The relevant portion of Samela is provided below for the Office's convenience.

FIG. **3** is a front view of the fibre channel adapter **40** according to the present invention. DB9 receptacles **48** are attached by connection means **64** to substrate **42**. Adjacent one of the DB9 receptacles **48** is a power jack **66** having four power terminals **77**, two grounded, one at plus twelve volts and the other at plus five volts. Adjacent the power jack **66** is the SCA2 receptacle **3**. Its pins **69** are shown emerging from the front **44** of substrate **42**. Located between the DB9 receptacles **48** is a pin header **57** for configuring the connection of the SCA2 receptacle **58** to the DB9 receptacles **48**.

Samela, Col. 5, lines 62-65.

Nowhere in the cited passage, or anywhere in Samela, is synchronization logic capable of providing synchronization for idle character switching disclosed. Samela simply discloses a plug for physically converting a DB9 receptacle for use in fibre channel. Samela does not implement a synchronization logic with the recited capability and therefore, does not anticipate the present invention. Anticipation cannot be established when "the prior art is lacking or missing a specific feature or the structure of the claimed invention." *Lindermann Maschinenfabrik GmbH v. American Hoist & Derrick Co.*, 730 F.2d 1452, 221 USPQ 481, 485 (Fed. Cir. 1984) (citing *Connell v Sears, Roebuck & Co.*, 722 F.2d 1542, 220 USPQ 193 (Fed. Cir. 1983)). In order for a reference to anticipate, "[a]n anticipating reference must describe the patented subject matter with sufficient clarity and detail to establish that the subject matter existed and that its existence was recognized by persons of ordinary skill in the field of invention." *ATD Corp.v. Lydall, Inc.*, 48 USPQ.2d 1321, 1328 (Fed. Cir. 1998) citing *In re Spada*, 15 USPQ.2d 1655, 1657 (Fed. Cir. 1990). Emphasis added. As a *prima facie* case of anticipation is not met, removal of the pending rejection under 35 U.S.C. §102(e) is requested and allowance is earnestly solicited.

Regarding Claim 14, Applicants note that Claim 14 includes all the limitations of Claim 10, from which it depends. Currently, Claim 10 is not pending an anticipation rejection, as such, Claim 14 cannot be anticipated as the Office has failed to find all the elements of Claim 10 in the Samela reference. Removal of the pending rejection under 35 U.S.C. §102(e) is requested and allowance is earnestly solicited.

Regarding Claims 8, 15, 22, and 25, Applicants traverse the pending rejection under 35 U.S.C. §102(e) over Samela. The Office's citation of "fibre channel adapter 40 of figs 2-7" as disclosing a dual porting apparatus is embodied in an application specific integrated circuit is misplaced. Nowhere does Samela teach or disclose a dual porting apparatus embodied in ASIC. Instead, item 40 is identified as a "fibre channel adapter 40 . . . .including a substrate 42 having a front 44 and a back 46. The front 44 has two DB9 receptacles." Samela, Col. 5, lines 27-30. Samela fails to disclose that the channel adapter could be embodied in an ASIC thus, does not anticipate the present invention wherein the dual porting apparatus is embodied in an ASIC. Anticipation requires the disclosure in a single prior art reference of each element of the claim under consideration. *W.L. Gore & Assocs. v. Garlock*, 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983), *cert. denied*, 469 U.S. 851 (1984). Removal of the pending rejection is respectfully requested and allowance is earnestly solicited.

Regarding Claim 15, Applicants note that Claim 15 includes all the limitations of Claim 10, from which it depends. Currently, Claim 10 is not pending an anticipation rejection, as such, Claim 15 cannot be anticipated as the Office has failed to find all the elements of Claim 10 in the Samela reference. Removal of the pending rejection under 35 U.S.C. §102(e) is requested and allowance is earnestly solicited.

Claims 9, 16, and 26 stand rejected as anticipated over Samela and specifically cites Samela, Col. 5, lines 50-51 (reproduced herein below for the Offices convenience). Applicants traverse the rejection. With specific reference to Claim 9, Claim 9 recites that the dual porting apparatus is integrated with the serial disk drive. Nowhere in the cited portion of the Samela reference, or anywhere in the reference is integrating the asserted dual porting apparatus into a serial disk drive disclosed or even suggested. Removal of the pending rejection under 35 U.S.C. §102(e) is requested and allowance is earnestly solicited.

On the back **46** of substrate **42**, is a forty pin SCA 2 receptacle **3** like that shown in FIG. 1 for mating to an SCA2 plug **2** (FIG. **1**). The SCA2 plug is the state of the art interface for fibre channel drives. An SCA2 receptacle **3** includes two cavities **11** for receiving grounding alignment posts **12** (FIG. **1**) while the male pins of an SCA2 fit into a central D-shell **26**.

Samela, Col. 5, lines 50-51

Regarding Claim 16, Applicants note that Claim 16 includes all the limitations of Claim 10 from which it depends. Currently, Claim 10 is not pending an anticipation rejection, as such, Claim 16 cannot be anticipated as the Office has failed to find all the elements of Claim 10 in the Samela reference. Removal of the pending rejection under 35 U.S.C. §102(e) is requested and allowance is earnestly solicited.

Claim 17 stands rejected as anticipated under 35 U.S.C. §102(e) over Samela. Applicants traverse. As discussed with respect to Claim 1, Samela discloses a plug adapter. Samela fails to disclose an apparatus including a first means for regenerating an idle character stream, a second means for regenerating an idle character stream, means for communicating serial disk drive data connected to the serial disk drive. . .communication means is capable of generating an idle data stream, and means for synchronizing communications between the first and the second idle regenerating means and the disk drive communication means. Samela discloses a physical plug for physically connecting a DB9 connection to a fibre channel adapter. Samela does not disclose means capable of regenerating an idle data stream. Instead, the Samela device is merely a physical plug for cross-connecting pin structures and therefore, fails to anticipate the present invention as no regenerating capability is present in the plug, as well as, synchronizing means and communication means. Neither, in the cited passages of Samela, nor anywhere in the reference is a synchronizer disclosed or even suggested. As a *prima facie* case of anticipation is not met, removal of the pending rejection under 35 U.S.C. §102(e) is requested and allowance is earnestly solicited.

Claim Rejection 35 U.S.C. § 103

35 U.S.C. § 103(a)

When applying 35 U.S.C. §103, the following tenets of patent law must be adhered to: (A) the claimed invention must be considered as a whole; (B) the references must be considered as a whole and must suggest the desirability and thus the obviousness of making the combination; (C) the references must be viewed without the benefit of impermissible hindsight vision afforded by the claimed invention; and (D) reasonable expectation of success is the standard with which obviousness is determined. *See MPEP § 2141 and Hodosh v. Block Drug Co., Inc.,* 786 F.2d 1136, 1143 n.5, 220 USPQ 182, 187 n.5 (Fed. Cir. 1986).

Claims 2-5, 10-12, 18-20, 23 and 24, stand rejected under 35 U.S.C. §103(a) in view of Samela in view of Ooi et al. United States Published Patent Application 2003/0005231 (hereinafter Ooi). Applicants traverse the rejection.

The Office is correct that Samela fails to teach each and every limitation of the present invention. The Office is incorrect that Ooi corrects these deficiencies. In determining the differences between the prior art and the claims, the question under 35 U.S.C. 103 is not whether the differences themselves would have been obvious, but whether the claimed invention as a whole would have been obvious. *M.P.E.P. §2141.02 citing Stratoflex, Inc. v. Aeroquip Corp.*, 713 F.2d 1530, 218 USPQ 871 (Fed Cir. 1983). Emphasis original.

Applicants respectfully forward the arguments with respect to the lack of anticipation of base independent claims as Samela fails to teach (with general regards to Claim 1) an apparatus having a first idle regenerator being capable of transmitting signals including an idle character stream, a second idle regenerator being capable of transmitting signals including an idle character stream is additionally included, and a third idle regenerator connected to the first and second idle regenerators and the serial disk drive. The foregoing

rational being generally applicable to Claim 10 as well although no rejection under section 102 is forwarded by the Office.

Regarding Claims 2-5, 11, 12, 18-20, and 24, Claim 2, for instance, recites an apparatus in which the auto detector is capable of controlling data transfers to the first and the second idle regenerators based on the presence of idle characters from the first and the second serial master devices. The asserted combination of Samela in-light of Ooi fails to make the combination obvious.

With particular regard to Claims 10 and 23, there has been no showing of a motivation for the suggested combination. "[I]t is necessary to ascertain whether the prior art teachings would appear to be sufficient to one of ordinary skill in the art to suggest making the claimed substitution or other modification." *In re Lalu*, 747 F.2d 703, 223 USPQ 1257, 1258 (Fed. Cir. 1984). In the present case, the Office has failed to offer any suggestion from the references themselves for the asserted combination. Moreover, the Office's entire rational for the asserted combination is "[i]t would have been obvious to a person of ordinary skill in the art to have the auto detector in order to provide detecting, mapping and selecting one of ports interfacing to devices." Instant Action, Page 7. This fails to indicate why one of ordinary skill in the art would know to combine the references. In this instance, the asserted motivation fails as the Samela device is simply a plug offering cross connect capability and the Ooi system is an emulation system for mimic emulation of parallel ATA for use with a SATA interface. Additionally, the references themselves fail to evidence any commonality or suggestion to combine as the references as they fall in different classes/subclasses. The mere fact that the prior art may be modified in the manner suggested by the Examiner does not make the modification obvious unless the prior art suggested the desirability of the modification. .... It is impermissible to use the claimed invention as an instruction manual or 'template' to piece together the teachings of the prior art so that the claimed invention is rendered obvious. This court has previously stated that "[o]ne cannot use hindsight reconstruction to pick and choose among isolated

disclosures in the prior art to deprecate the claimed invention." *In re Oetiker*, 977 F.2d 1443, 24 USPQ 2d 1443 (Fed. Cir. 1992) *quoting In re Fine*, 837 F.2d 1071, 1075, 5 USPQ 2d 1596, 1600 (Fed. Cir. 1988). In this instance, the entire motivation to combine appears to utilize the present invention for the asserted motivation, rather than from the knowledge of one of ordinary skill in the art or the references themselves.

Even if the asserted motivation to combine existed, the combination would not result in the present invention as Ooi fails to disclose a system in which the auto detector is capable of controlling data transfers to the first and the second idle regenerators based on the presence of idle characters from the first and the second serial master devices. Ooi discloses an "emulation state machine 300 emulates a response from one of the parallel channels based on the access type." Ooi, Page 3, paragraph [0042]. Ooi on the whole fails to teach an auto detector capable of controlling data transfers. . . based on the presence of idle characters. Ooi makes no provision for detecting idle characters for utilization in controlling data transfers. Instead, Ooi discloses a system in which "[a] state machine emulates a response from the one of the parallel channels based on access type and the mapped serial ports." Ooi, Abstract. Wherein a mapping circuit merely translates the address of the parallel channel into a serial port. Ooi, Page 3, paragraph [0044]. As a *prima facie* case of obviousness is not met, removal of the pending rejection under 35 U.S.C. §103(a) is requested and allowance is earnestly solicited.

CONCLUSION

In light of the forgoing, reconsideration and allowance of the claims is earnestly solicited.

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